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Art. CCXXXIII. — *Notes of a Botanical Ramble in Yorkshire, &c. in the Summer of* 1844. Communicated by James Backhouse, Jun.

On the 28th of 6th Month (June), our party, consisting of John Tatham jun., of Settle, James Backhouse, James Backhouse jun., and Silvanus Thompson, of York, and G. S. Gibson, of Saffron Walden, left York for Darlington; and thence proceeded by way of Bishop Auckland, to Crook, where we left the railway, and took the road for Wolsingham, distant about six miles, up the valley of the Wear. On the wooded banks of the river we found Rosa villosa, Myrrhis odorata, Arenaria verna, Geranium sylvaticum, Salix nitens and Stellaria nemorum. These plants, with the exception of the two latter, were frequently met with in subsequent parts of our excursion; and they may be considered common plants in this district. We were struck with the large quantity of Myrrhis odorata; and we found it so often in places remote from cultivation, that we could not doubt its being indigenous, though supposed by many botanists to be an introduced plant.

Leaving the main river, we turned up one of its southern branches, the Bollihope, in order to visit Bishopley Crags, a series of limestone cliffs between which the river forces its way. Here we saw Hieracium murorum (*Babington*), Crepis paludosa, Campanula latifolia, Asplenium viride, Myosotis sylvatica, Festuca calamaria, &c.; these also, with the exception of the last, are not uncommon plants in Teesdale.

On the moor above the Bollihope, we observed Festuca rubra, F. ovina, *γ. tenuifolia*, Viola lutea var. *amœna*, Empetrum nigrum, Myosotis repens &c.; and on Middleton Fell, Saxifraga stellaris, Rubus Chamæmorus, Carex intermedia, Eriophorum vaginatum, &c. By keeping too far to the south of the ridge separating Weardale from Teesdale, we had to ascend several steep hills covered with ling, and cross the intervening valleys, which, at the end of a long day's journey, was very fatiguing. After a walk of about twenty-seven miles, we arrived late in the evening at the High Force Inn. The country through which we passed, presented considerable diversity of wood and bleak trackless moors, the latter of which are generally unfavourable for botanizing.

The next morning we set out for Widdy-bank Fell, Cauldron Snout and Falcon Clints; which comprehend a district probably the richest in Teesdale for a botanist. Passing along the Alston road for about two miles, we gathered Trollius europæus, Cnicus heterophyllus, Polygonum viviparum and Primula farinosa, which we saw in most of the moist meadows. Leaving the road, we crossed Langdon foot-bridge, and followed the course of a mountain stream, now much diminished in consequence of the long drought. Along its margin we found Sedum villosum, Tofieldia palustris, Saxifraga aizoides, Bartsia alpina, Kobresia caricina, Potamogeton plantagineus, Cochlearia grœnlandica? Armeria maritima, *β. alpina*, &c.; and on the top of the Fell, Gentiana verna, Thalictrum alpinum, Lycopodium alpinum, Selago and selaginoides, Juncus triglumis, Carex capillaris, curta, dioica and ampullacea, Rubus Chamæmorus, Arabis hirsuta, Gnaphalium dioicum, Plantago maritima, &c. Here we found a small plant resembling a Spergula; but being unable to identify it with any described British species, we transmitted a specimen to Sir W. J. Hooker, and soon received from him the gratifying intelligence that it was Spergula stricta, a plant not previously found in the British islands. It occurred very sparingly, and from its growing among Arenaria verna, which, when out of flower, bears considerable resemblance to it, it was difficult to detect. We saw no trace of it in any subsequent part of our excursion, although we searched carefully in many likely localities.

We next visited Cauldron Snout, a cataract of the Tees where the river is precipitated in a broken fall of about two hundred feet down a dark basaltic gorge. In consequence of the small quantity of water, this, as well as most of the other falls, was less striking than usual; from the foot-bridge across the fall, a fine view of it is obtained, and the beauty of the scene is increased by a range of lofty basaltic crags, called Falcon Clints, which commence here, and extend along the side of the river for about a mile and a half. We scrambled over the debris at the foot of these crags, carefully examining the face of the scar for Woodsia ilvensis: we succeeded in finding three small plants of it, growing in the fissures of the basalt. When first gathered by James Backhouse, twenty-three years ago, it was considerably more abundant and luxuriant than at present.

We noticed also upon the rocks and among the debris, many commoner ferns, such as Allosorus* crispus, Asplenium viride, Polypodium Phegopteris, P. Dryopteris, &c. At one place, where the limestone appears, we gathered Polystichum Lonchitis, more than fifteen inches in length, but in very small quantity. We also saw Epilobium alsinifolium, Hieracium diaphanum and Lawsoni, Viola flavicornis, and a single plant of Saxifraga umbrosa, var. *crenata*. In a marshy spot near the junction of Maizebeck with the Tees, we gathered Saxifraga stellaris in great profusion, and remarkably large. Returning by Whetstone Sill, we noticed Habenaria albida, Salix arenaria, Equisetum variegatum, Carex capillaris and Bartsia alpina, the two last nearly a foot in height. We returned to the inn to tea, and afterwards went down to the High Force; the rocks here are of basalt overlaying limestone, down which the river pours in an almost unbroken fall of sixty-nine feet in height, into a dark basin, and runs along a deep ravine among high perpendicular rocks.

Several rare plants are found here, among others, Hieracium rigidum and Lawsoni, Crepis succisæfolia, Sesleria cærulea, Poa Parnellii, Melica nutans, Potentilla fruticosa, Solidago Virgaurea, *β. cambrica*, Carex rigida ? Geum rivale &c.; and on the scars beyond, we gathered Arbutus Uva-ursi. This has hitherto been considered the only locality for Poa Parnellii, which we found growing abundantly on the rocks, but scarcely come to perfection.

On the 1st of 7th Month we started early for High-cup Scar, taking Falcon Clints on the road, the upper series of which we partially explored, but found little fresh. On the way thither we gathered a few specimens of the rare Hieracium Lapeyrousii, and near Cauldron Snout discovered a fresh locality for Poa Parnellii.

Leaving Cauldron Snout to the right, we followed Maizebeck from its junction with the Tees; along its banks we gathered Botrychium Lunaria, Myosotis repens, Saxifraga stellaris, &c. Taking a branch of Maizebeck to the left, and following it almost to its source, we crossed over Scordale Head, and visited Gaskill tarn on its summit, a body of water of considerable extent, but affording no plants worthy of notice. Hence we descended towards the head of High-cup Scar, an enormous opening in the mountains of about one thousand feet in depth, nearly surrounded by perpendicular basaltic crags, and resembling in shape the hull of a large vessel: the lower part is chiefly covered with debris interspersed with patches of short grass; it is upwards of a mile and a half in length, and half a mile across in the widest part. The great depth of the valley below, and the dark shade of the rocks, entirely destitute of trees, give the whole a very striking aspect. The view of it from the upper extremity, with the fertile vale of the Eden in the distance, bounded by Helvellyn and many of the Cumberland mountains, is very grand and imposing.

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* In this, and a few other instances, we have, with permission, altered the nomenclature of the ferns.—*Ed.*

There are several gorges in the sides of the Scar, formed by the descent of mountain streams; and in two of these Saxifraga nivalis is found in tolerable abundance (Phytol. 894). We obtained several specimens, though it flowered but sparingly, probably on account of the dryness of the season. Much of it grows in inaccessible places, consequently there is little danger of its being exterminated, although it appears to be confined to a small locality. In these gorges we also noticed a peculiar variety of Chærophyllum sylvestre, with deeply incised, shining, dark leaves, and a nearly smooth stem, which we were at first inclined to think a new species, but not being able to discover sufficiently distinctive characters, we were compelled to consider it merely a mountain variety. We also found a third locality for Poa Parnellii, which appears to be generally confined to basaltic rocks. Rhodiola rosea grows in this Scar in great profusion; Saxifraga hypnoides and platypetala, Draba incana and Thlaspi alpestre occur more sparingly.

After a difficult descent to the bottom, we ascended the opposite side, and found Epilobium alsinifolium near the source of a small stream. We then followed a track which led to Dufton, a small mining village, where there are two small inns, to one of which we bent our steps.

The next day we explored some other portions of High-cup Scar, but without any great success; we noticed however Polypodium calcareum, Hieracium Lawsoni and murorum, Melampyrum pratense, β. *montanum* &c. Returning along Maizebeck we gathered one or two specimens of Potentilla alpestris upon the rocks; then crossing the moors, and following the course of the Tees, we came to the foot of Cronckley Fell, a craggy basaltic mountain, about eighteen hundred feet in height. Ascending it on the western side, we again met with Epilobium alsinifolium; and on the rocks above, saw Arbutus Uva-ursi in great abundance, and remarkably full of fruit: it was formerly collected in the neighbourhood for medicinal purposes. On a grassy slope near the summit we gathered Dryas octopetala, Hippocrepis comosa, Helianthemum canum, Gentiana verna, Juncus triglumis, Carex capillaris (in its usual form, about an inch and a half in height), Tofieldia palustris, Saxifraga hypnoides &c. Descending by a miner's path, we crossed the Tees and returned to our old quarters.

As there were several localities in the vicinity of the High Force which we wished to explore, we concluded to devote the following day to this object, and therefore set out for Winch Bridge, a mile and a half distant. On the road-side we gathered a tetragonous Epilobium, which we took to be E. virgatum of Babington; we also noticed it in several other places in the course of our journey: observation upon it in its different localities, leads us to doubt its specific distincness from E. tetragonum.

Winch Bridge, is a small suspension bridge for foot-passengers across the high rocks, which here overhang the Tees; it is prettily situated among extensive plantations, and its beauty is much enhanced by the foaming of the river, as it rushes over the rocks beneath. Here we found Hieracium Lapeyrousii, rigidum, α. and β. (?), murorum, umbellatum and Lawsoni, Crepis succisæfolia, Thlaspi alpestre, Potentilla alpestris, Melampyrum sylvaticum, Carex rigida ? Galium boreale, Bartsia alpina, Rumex aquaticus, Rubus saxatilis, Equisetum variegatum and sylvaticum. We also discovered a fourth locality for Poa Parnellii, and another single plant of Saxifraga umbrosa, β. *crenata.* We also observed an Equisetum, evidently different from the common species, which proved to be E. umbrosum. Though too late for the fertile stems, the habit of the plant readily distinguished it. It somewhat resembles small plants of E. fluviatile [*Smith* not *Linn.*], but is paler in colour, and has a deeply furrowed scabrous stem, almost destitute of branches on the lower half. It grew in profusion on the Yorkshire side of the river. After having spent a considerable time here, we proceeded northward towards a farm-house called Moor Riggs, and on the way thither met with Salix laurina and amygdalina: Pyrola minor was also gathered sparingly. In a moist meadow near a cottage on the top of a neighbouring hill, we rediscovered Vaccinium uliginosum, which had been gathered there thirty years previously, by the late Dr. Oliver and James Backhouse: it is confined to a small space, and we could see no traces of either flower or fruit. Being desirous of examining more completely the various Hieracia which abound on the banks of the Tees, we devoted the remainder of the day to this object, although they were scarcely far enough advanced to admit of our doing this satisfactorily.

(To be continued).

ART. CCXXXIV. — *Notice of 'Essays on Natural History, chiefly Ornithology.'* By CHARLES WATERTON, Esq. Author of 'Wanderings in South America.' Second Series. London: Longmans, 1844.

THE greater portion of this delightful little volume, as may be gathered from its title, is devoted to Mr. Waterton's favourite science, Ornithology; still, it contains quite enough of botanical matter, and that, too, of the most pleasing character, to render it a legitimate subject for a notice in our pages. Even were it otherwise, we should deem it but a partial discharge of the debt of gratitude due to the memory of one, who laboured long and ardently in the cause of science, to aid by our humble efforts the kindly motive which has led to the appearance of the present volume of Essays.

The author informs us, in his brief Preface, that when the late Mr. Loudon requested him to write a few papers which might be formed into "a little book of Essays," he had awful fears, lest, in disregarding the wholesome truth conveyed in the Spanish adage, — "Happy is the man who has written no more than one book," — he should lose the reputation he had formerly gained by the 'Wanderings.' "Great then indeed," continues Mr. Waterton," must be my anxiety on the present occasion, when I am rash enough to deviate another time from the Spanish line of certitude, into the mazes of chance and danger; where the track which I am to pursue is ill defined and flinty, and may possibly lead me and my new little book into some quagmire or other; there to perish without assistance; the scorn of the critics, and the pity of disappointed friends. However, be this as it may, my die is cast, my steam is on, and I am already at the opposite bank of the Rubicon."

In a subsequent paragraph, the author playfully defies the attacks of the critics; telling them that he again offers them half a day of occupation, for which they ought to be thankful, "at a season when work is not always to be obtained." But what critic could dip his pen in gall and therewith record a philippic against a work called into being by one of the holiest impulses that can direct human actions? Who could direct an envenomed shaft against this second volume of Essays, after reading the following passage?

> "The volume which I now present to an indulgent public, is an unsolicited donation to the widow of my poor departed friend Mr. Loudon, whose vast labours in the cause of science have insured to him an imperishable reputation. If this trifling present on my part shall be the medium of conveying one single drop of balm to the

wound, which it has lately pleased Heaven to inflict on the heart of that excellent lady, my time will have been well employed, and my endeavours amply requited."—p. iv.

To those who are acquainted with Mr. Waterton's writings, we scarcely need say that from almost every page of the present volume, beams forth the same enthusiastic love of Nature and Nature's works as gave life and animation to the previous productions of his pen. And it is pleasant to think that the mind which could conceive and the hand that could trace the living pictures of the 'Wanderings,' can still, after the wear and tear of sixty years, present us with such delightful sketches as the following! Sure we are that the heart of every one, who knows aught of the charms of a country life, will acknowledge its truthfulness.

"To me, whom kind Providence has destined to spend the best part of my time in the open air, the song of birds is soothing beyond expression; and whilst I am admiring the beauty of the rising flowers around me, I know no greater addition to my gratification than that of listening to it. How enchanting is it to inspect the early snowdrops, those "fair maids of February," whilst the stormcock is pouring forth his newly acquired notes from the top of a neighbouring elm! and how delightful it is to hear cock-robin's carol on the thorn that affords a shelter to the humble primrose! The lily of the valley, too, sweet, lovely, lowly daughter of May, how I gaze in ecstacy on its virgin whiteness, whilst the stranger cuckoo's note sounds through the dell, and insures me the return of warmer weather! The chaffinch, too, and the whitethroat, and the thrush, and the blackbird, with pretty jenny-wren, and the hedge-sparrow, all add charms inexpressible, by their sweet notes, to the rising flowers of the dale."—p. 3.

Like most country gentlemen, Mr. Waterton, as is well known, has certain predilections, or, as some would call them, prejudices, both political and religious; but the Wanderer is too amiable ever to allow them to interfere with the charities of private life. And if, sometimes, they *will* make their appearance in an Essay on Natural History, there is always such a redeeming air of pleasantry about them, and a something so droll in the union of the two subjects, that it is quite impossible to suppress a smile, even at the most biting of the author's sarcasms. Witness the following Essay on

"*The Powers of Vegetation.*

"In those good days of old, when there were no corn-factors in England to counteract that part of our Redeemer's prayer, "Give us this day our daily bread," by hoarding up vast stores of grain, until mouldiness and vermin have rendered it unfit for the use of man, there stood at Walton Hall a water-mill, for the interest of the proprietor and the good of the country round. Time, the great annihilator of all human inventions, saving taxation and the national debt, laid this fabric low in ruins some sixty years ago; and nothing now remains to show the place where it once stood except a massive millstone, which measures full 17 ft. in circumference. The ground where the mill stood having been converted into meadow, this stone lay there unnoticed and unknown (save by the passing hay-maker) from the period of the mill's dissolution to the autumn of the year 1813, when one of our nut-eating wild animals, probably by way of a winter store, deposited a few nuts under its protecting cover. In the course of the following summer, a single nut having escaped the teeth of the destroyer, sent up its verdant shoot through the hole in the centre of the procumbent millstone.

"One day I pointed out this rising tree to a gentleman who was standing by; and I said, 'If this young plant escape destruction, some time or other it will support the millstone, and raise it from the ground.' He seemed to doubt this.

"In order, however, that the plant might have a fair chance of success, I directed that it should be defended from accident and harm by means of a wooden paling. Year after year it increased in size and beauty; and when its expansion had entirely filled the hole in the centre of the millstone, it gradually began to raise up the millstone itself from the seat of its long repose. This huge mass of stone is now 8 inches above the ground, and is entirely supported by the stem of the nut-tree, which has risen to the height of 25 ft. and bears excellent fruit.

"Strangers often inspect this original curiosity. When I meet a visitor whose mild physiognomy informs me that his soul is proof against the stormy winds of politics, which now-a-days set all the world in a ferment, I venture a small attempt at pleasantry, and say, that I never pass this tree and millstone without thinking of poor old Mr. Bull, with a weight of eight hundred millions of pounds about his neck."—22.

Kindly affectioned as he is towards all things that live, yet is Mr. Waterton's love poured out in its fullest measure upon the feathered race. And in proportion as the tenants of air are protected or persecuted, defended or injured by other tribes, so are the latter esteemed or contemned by the kind-hearted Wanderer. These feelings are even extended to the vegetable kingdom; and among trees and shrubs, such as afford to his winged favourites the greatest amount of food and shelter, enjoy the largest share of Mr. Waterton's regard. Of these the holly, the yew and the ivy, have each an Essay devoted to them, all of which claim our attention. And standing first in order, as the tree apparently does in Mr. Waterton's esteem, we begin with a few extracts from the Essay on

The Holly.

"I am very partial to the holly, the yew, and the ivy. They give both food and shelter to the birds; whilst their charming green foliage makes us almost forget that winter has set in. The holly claims my preference; for, in addition to food and shelter, it affords an impenetrable retreat to those birds which take up their quarters on its branches for the night.

"Our ancestors knew and felt the value of the holly hedge, when the wintry blast whistled through the naked hawthorn. Hence they raised it as a barrier against the north; and, on the breaking of the clouds at noon, they would resort to the protection which it offered, and there enjoy the sun's delightful presence. But modern innovation, which, in nine times out of ten, does more harm than good, seems to have condemned the holly hedge as a thing of stiff unsightly form, and in its vacant place has introduced a scanty sprinkling of isolated plants. I own that I am for the warm arboreous plan of ancient days; and thus I never pass a garden where yew and holly hedges grow, without stopping to admire them, and then I proceed onwards with favourable notions of the owner's taste.

"But, to the holly in particular. I am so convinced of its utility both to men and birds, that I have spared no pains in rearing it as a shelter from the cold, when Boreas, sure harbinger of storms, sweeps over the dreary waste.

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"I consider a regularly formed clump of hollies to be the perfection of beauty, in grouped arboreal design. One single tree of mountain ash in the centre of this would add another charm to it, and would be of use to the ornithologist at the close of summer. When the holly trees are in full bearing, and the berries ripe, we may roam a long while through the whole extent of British Botany, before we find a sight more charming to the eye than the intermixture of bright red and green which this lovely plant produces.

"I have a fine circular clump of hollies here, under which the pheasants are fed; and to which, throughout the whole of the winter, a vast number of sparrows, green linnets, buntings, blackbirds, and some starlings resort, to take their nocturnal repose in peace and quiet. The holly sheds a large proportion of its leaves after the summer has set in. These remain on the ground in thick profusion. So formidable are their hard and pointed spikes to the feet of prowling quadrupeds, that neither the cat, nor the weasel, nor the foumart, nor the fox, nor even the ever-hungry Hanoverian rat, dare invade the well-defended territory. Hence the birds, which in yew-trees and ivy, would be exposed to inevitable destruction from the attacks of these merciless foes, are safe from danger in the holly bush."—p. 32.

The author feelingly laments over the destruction of the holly-trees, occasioned by a vile practice of "strolling vagabonds," who strip off the bark and sell it to the makers of bird-lime. He says that "so common has this act of depredation been in this vicinity, that I should be at a loss to find a single holly tree, in any hedge outside of the park wall, that has escaped the knife of these unthinking spoilers." An instance is adduced of a magnificent variegated holly, which annually bore a large crop of berries. One morning the bole of this tree was found stripped of its bark for full two feet in length. The tree survived the injury until the third year, when it died.

The Yew Tree.

"I am extremely partial to the yew-tree. It has already repaid me for the pains which I have taken in its cultivation; and when I resort to my usual evening stand, in order to watch the flocks of sparrows, finches, and starlings, whilst they are dropping in upon the neighbouring hollies, I feel not the wintry blast; as the yew trees, which are close at hand, are to me a shield against its fury; and, in fact, they offer me a protection little inferior to that of the house itself.

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"Charming is the appearance of the yew tree after the sun has passed the autumnal equinox. The delicate crimson of its fruit, with the dark green leaves behind it, produces an effect so pleasing to the view, that it can scarcely be surpassed by anything which the southern forests present to the lover of Botany, as he wanders through their mazes.

"The bole of this tree possesses the power of effectually reproducing a supply of main branches, after the original ones have been severed from it by the axe of the woodman. At Lupset Hall, the residence of our former honest member for Wakefield, Daniel Gaskell, Esq., there stands a lordly yew, by far the most gigantic of any in this neighbourhood. At some period of time, now long gone by, all its larger branches have been cut away from the stem. Others now supply their place; and by the present healthy aspect of the tree, we may conclude that, at some future day, this second series of main branches will have attained a growth and vigour equal to what the original ones would have presented to us, had they been allowed to remain on the tree."—p. 60.

Speaking of the yew-trees growing near our old churches, Mr. Waterton is of opinion that they were planted in such situations for "the facility of obtaining sprigs and branches to be used during the processions." We must confess this explanation appears to us much more feasible than that which attributes the presence of the tree near the church to the necessity of keeping up "a good supply of bows in case of war."

In the Essay on the Ivy, the Wanderer's character as the champion of calumniated innocence is pleasingly exhibited. The Essay contains a masterly defence of this plant, which has frequently been wrongfully accused of injuring the tree upon which it grows, both by deriving nutriment from the supporting plant, like the dodder and other parasites, and by so closely entwining the branches as to prevent their growth. Mr. Waterton shows that it does neither the one nor the other.

"We live to learn. I was not sufficiently aware of the value of ivy for the protection of the feathered race, until I had seen the pheasant-preserve of the Grand Duke of Tuscany, in the year 1817. It is called the Cascini, and it is a kind of Hyde Park for the inhabitants of Florence in their evening recreations.

"At the grove of the Cascini, you see the ivy growing in all its lofty pride and beauty. As I gazed on its astonishing luxuriance, I could not help entertaining a high opinion of the person, be he alive or dead, through whose care and foresight such an effectual protection had been afforded to the wild birds of heaven, in the very midst of the 'busy haunts of men.' The trees in this ornamented grove are loaded with a profusion of ivy, from their lowest to their topmost branches; and although crowds of fashionable carriages were rolling along the road which surrounds this preserve, I saw our common pheasant roving through its walks, with a confidence little inferior to that of our own domestic poultry. As the evening closed in upon us, I observed multitudes of the smaller birds resorting to the 'ivy-mantled' trees, in order to enjoy the proffered convenience of nocturnal rest and safety.

"I have profited by what I saw in Tuscany, — for, on my return to my native place, I began the cultivation of ivy with an unsparing hand.

"There are two sorts of this ever-verdant plant. The one is denominated English, the other Irish ivy. Both are exceedingly graceful in their foliage; but the first is by far the better bearer of fruit. They will grow on any soil, save that of swamp. Whilst the plant is on the ground, you have only to cover its long runners with a little earth at intervals of four or five inches, and you will soon have an abundant supply of ivy for ornament; and for use, as far as the birds are concerned. This is a surer way of obtaining plants, than by cutting them at once from the climbing ivy.

"Ivy can only attain its greatest perfection through the intervention of foreign bodies. It travels onward in a lowly state upon the ground, until it reaches some inclined or perpendicular object, up which it ascends. In due time it then puts out lateral branches, and obtains a bole, as though it were a forest tree itself. Ivy derives no nutriment from the timber tree to which it adheres. It merely makes use of a tree or wall, as we ourselves do of a walking-stick, when old age or infirmities tell us that we cannot do without it. Should an ancient wall and ivy come in contact, they are of great assistance to each other. Dyer observed this on Grongar hill:—

'Whose aged walls the ivy creeps,
And with her arms from falling keeps:
So, both a safety from the wind
In mutual dependence find.'

There can be no doubt as to the real source from whence ivy draws life and vigour: from the ground alone its maintenance proceeds. To be convinced of this, we have only to inspect it narrowly on a living tree, and then pay the same attention to it upon a dead one, or upon any stump deprived of vitality. Be our eye as keen as that of the lynx, we shall not be able to perceive that the one plant is more healthy, more vigorous, or more verdant than the other; and if we cut through the stock of the ivy in either situation, we shall see that its upper parts will wither and die, down to the place through which the knife has passed.

"Some few years ago, a tall sycamore tree stood on this island, in a row with four others. A remnant of its once fine bole still occupies the place which the tree adorned in the days of its prosperity. An unexpected appearance of fungus showed that all was not right within; and, ere long, a gale of wind cut the tree nearly in two, sending its head and all its branches (saving one), with a colony of young jackdaws, down into the lake below. The remaining portion of the tree, spared by the gale, put out new shoots from every part of its circumference. But scarcely had these vegetated for four succeeding summers, when another immense fungus made its appearance about two yards from the truncated top, and all vegetation ceased that year, down to the part where the fungus had come out. Below this, the trunk was still alive; but another fungus, of equal dimensions with the last, showed itself about five feet from the ground, and deprived the bole of all vegetation upwards.

"At length this sickly remnant of the sycamore tree received its final doom; for, last summer, a vast profusion of fungus pushed up its circular cakes even from below the surface of the ground; and on their coming to maturity all the living powers within this ill-treated tree expired. The bole now stands a dead and unproductive stump. Any day, a north-west wind, sweeping across the water, may lay it low for ever. Did the ivy, which I had planted at the base many years ago, depend upon this bole for succour, it would now be dead and withered; but, on the contrary, that remaining part of it, free from mutilation when the different portions of the tree fell down, is now in verdure, and in primest vigour; but as it has no longer an opportunity of creeping upwards, on account of the misfortunes which have befallen the tree, it has assumed the form of a bush, with dense and widely spreading foliage."—p. 68.

Mr. Waterton planted ivy at the foot of many trees, "and refused it to others in the immediate vicinity, and on the same soil," but a minute inspection shows no difference in the appearance of the trees, all being equally healthy and flourishing. He continues : —

> "Neither is this to be wondered at when we reflect that the ivy has its roots in the ground itself, and that it does not ascend in spiral progress round the bole and branches of the tree; its leading shoot is perpendicular. Hence it is not in a condition to compress injuriously the expansive powers of the tree, proportionally stronger than its own. Thus we find that the ivy gradually gives way before them; so that on removing the network (if it may be so called) which the ivy has formed on the bole of the tree, we find no indentations there.
>
> "But woodbine acts the reverse of this. Its process is spiral, and it becomes, as it were, an immovable hoop on the plant which it has embraced. As the woodbine, by its circumambient position cannot give way, the plant must consequently protrude wherever it is not compressed, till at last the woodbine becomes nearly buried in it. Thus we account for the fantastic form of walking-sticks, which are often to be seen at the shop doors of curious venders. The spiral hollows in these sticks are always formed by the woodbine, never by the ivy."—p. 73.

Before we conclude we must direct our readers' attention to one thing which the author has much at heart. Mr. Waterton is exceedingly anxious that trial should be made of the Wourali poison, in cases of that dreadful and hitherto incurable malady — *hydrophobia.* He observes, that it is right to give the sufferer a chance of saving his life by the application of an untried agent of great power, which, even if it do not save life, would at least "render death calm and free from pain." In cases of hydrophobia Mr. Waterton wishes that early aplication should be made, either to himself, at Walton Hall, Wakefield, Yorkshire; or to Mr. Sibson, at the General Hospital, Nottingham. Such application "will be most punctually attended to."

The few choice extracts we have culled from this delightful book, will, we trust, have the effect of inducing our readers to aid the benevolent design of the amiable Wanderer, by purchasing the volume itself. To its pages we would refer for much pleasing matter relative to the culture of the holly, the yew and the ivy; gigantic raspberries, wild and cultivated, fourteen feet high; quadrupeds, birds, scenery, adventures by sea and land, both pleasant and perillous; — all these subjects, and numerous others, are graphically treated in the Essays, and in the 'Continuation of the Autobiography of the Author' thereunto prefixed. And further, we would express a hearty hope, that the accomplished author may be led to reconsider his determination, and so favour us, at no distant period, with more of his delightful Essays.

ART. CCXXXV.—*Varieties.*

502. *Note on Anthyllis vulneraria.* In reply to Mr. C. C. Babington's enquiry (Phytol. 1019) respecting my diadelphous state of Anthyllis vulneraria, I regret to state that all the specimens I have by me are monadelphous, or, as Mr. Babington observes, with one filament free at the base and summit. What became of the identical plants I examined in the fresh state, I know not. Mr. Ralfs, to whom I showed my plant before I sent the note for insertion in your pages (Phytol. 1000), desires me to say that on my mentioning the subject to him, he supposed me to be in error, or to have separated one filament by violence in dissection; but on examining a flower in my specimen, found it decidedly diadelphous.—*Alfred Greenwood; Chelmsford, June* 26, 1844.

503. *A few more words on the London Catalogue.* For reasons best known to himself, your respected correspondent, the attempted vindicator of the London Catalogue (Phytol. 1014), has carefully left untouched the main points of Mr. Sidebotham's letter or critique in the May No. (Id. 972). He may say, perhaps, that the details of the letter occupied no place in his attention while penning the defence: in fact he tells us at the outset, that he writes merely at the suggestion of the "editorial note" appended thereto. But standing forth as does Mr. Dennes, the champion of the new list, especially too as he condescends to notice *some part* of the letter, it was certainly to be expected that he would have entered at greater length upon its more important portions. To this, again, he may reply by repeating that Mr. Sidebotham's strictures were mostly founded on misapprehension, and therefore did not call for special answer. If it is a misapprehension that Viola odorata is marked in the list as an introduced plant, and that the numerous changes specified by Mr. Sidebotham, are meant to be literally interpreted, of course there is no need for explanation. But there can be no mistaking the facts which he has cited; and as the letter was simply one of enquiry,—as Mr. Sidebotham evidently had no other object in view than ascertaining the reasons for certain changes, I do hope next month's 'Phytologist' will be a satisfactory one in the matter of reply. To come however to particulars. Mr. Sidebotham never "accused" the London Society of making "extensive changes in nomenclature." He merely enquired why the new nomenclature introduced by the Edinburgh Catalogue and other publications, with good *stated* reasons, was not adhered to, instead of older names being in great measure restored. This circumstance is the more remarkable from the interest which the London list professes to take in the convenience of foreign botanists: inasmuch

as it rejects the very means which the Edinburgh Catalogue tells us is best calculated to promote it, namely, similarity of names! By the way, when dethroning the usurper, Carex *irrigua*, and restoring the rightful appellation of *glauca*, why not carry out the principle, and print *humilis* instead of *clandestina?* A far more important feature in the London Catalogue, is the change of rank forced upon certain species and varieties. Mr. Dennes does not even touch upon this: because the cases quoted by Mr. Sidebotham were "misapprehensions" I presume. I may be falling into the same error myself, nevertheless, I beg to enquire for information's sake, why Ranunculus fluitans is only a variety, while circinatus is a species? Why is Lotus major a species, and hispidus a variety? Why are Scirpus pungens, Rumex aquaticus, Juncus diffusus and Prunus avium varieties only? Why is Senecio aquaticus only a variety of Jacobæa? Why is Scrophularia Ehrharti a var. of nodosa? Why are Potamogeton filiformis and zosteraceus varieties, if oblongus and plantagineus are species? Why separate Lamium album and maculatum, and combine amplexicaule and intermedium, the two former being more nearly allied than the two latter? If Glyceria Borreri is to be referred to distans, why not both to maritima? And lastly, if Carex irrigua is a variety, why not also rariflora? Then again, we have several novelties in genera, which it would be desirable to have explained. For instance: — Why is Armoracia adopted, and not Erucastrum? Why Schoberia and not Halimus? Why are Sinapis Monensis and S. Cheiranthus placed in that genus, and not in Brassica, whilst nigra, incana, muralis and tenuifolia are also there? As to the distinction of native and naturalized species, it appears to me that nothing could be more straightforward that Mr. Sidebotham's enquiries. He did not so much seek to ascertain the motive for including or excluding certain species, as to elicit the *principle* or *plan* which had been followed in estimating our Flora, as elsewhere in re-adjusting nomenclature and relative rank. What is there in his letter that can be said to justify or even to call for Mr. Dennes' ironical challenge; especially when it so overflows with "misconceptions"? May I ask why Ononis reclinata is not, while Veronica Buxbaumii is, a true native? What difference is there between the claims of Fedia auricula and F. carinata and dentata? Why give Bupleurum falcatum, Salvia pratensis and Achillea tomentosa as naturalized? Has Narcissus Pseudo-narcissus any better right to be called wild than Galanthus? It would be easy to ask fifty more such questions with reference to the London Catalogue. For the present I will leave it. Should we be favoured with another vindicatory letter, I do hope it will bear upon the points at issue rather than those minor features of the list, which, as no one would object to them, require no further remark.—*Leo. H. Grindon; Manchester, July* 8, 1844.

504. *Note on Anthyllis Vulneraria.* The observations in the two last numbers (Phytol. 1000 and 1019), have induced me to examine more closely the position of the stamens in Anthyllis Vulneraria. The plant grows close at hand in this neighbourhood, and in great abundance upon the cliffs and broken land; I have thus been enabled to consult numerous specimens. But as the result of my enquiries does not appear to agree with the remarks either of Mr. Greenwood or Mr. Babington, I give it in full, hoping some light may thereby be thrown on the subject. One stamen is *perfectly free* at the base and extremity, as in Diadelphia; and, in the young state of the plant is united to the other nine, as Mr. Babington observes, throughout most of its length: but generally [separates] *first* from the base, meeting and joining the left hand united filaments; and at the summit separating *last* from the filaments on the same side. I *have* found it adhering to the filaments on the *right* hand. This is the state of the stamens before the bursting of the anthers; after they have performed their function, the central stamen gradually separates from the right hand united filaments, continuing more or less adherent to those on the left. In some instances I have found the separation so decided that the single stamen could be removed without difficulty. When the seed is matured it forces its way through the slit, but owing to the shrinking and contraction of the stamens at their summit, a curious appearance is presented, the threadlike style being still confined at its extremity.—*F. Townsend; Steephill, Isle of Wight, July* 21, 1844.

505. *Note on Iris fœtidissima with double flowers.* I beg to enclose you a double blossom of Iris fœtidissima, which I found to-day growing near this town. I do not know whether it is sufficiently rare to merit a notice in a botanical journal; but never having seen a double Iris, either among cultivated or wild plants, I thought it might prove interesting to you. The plant was growing in a ditch, among some tufts of common ones, and had three or four bunches of flowers as double as those I now send; while upon the other plants the seed was nearly ripe.—*Robert Battersby, M.D.; Torquay, July* 29, 1844.

506. *Crepis biennis a Kentish Plant.* As I believe considerable doubt has been entertained with reference to the occurrence of Crepis biennis in Kent, the very different and distinct Barkhausia taraxacifolia having been repeatedly mistaken for it; I have much pleasure in communicating to the pages of 'The Phytologist,' a recently verified habitat for the true plant; my specimens of which, several of them

full four feet high, I had the good fortune to meet with in June last, at the hamlet of Bush by Cuxton, growing near the copse or shaw by the foot-path, just beyond and leading from the street of Bush, over the meadows and cornfields, towards Halling on the Medway. My plant is identical with authentic specimens collected near Cambridge a few seasons ago; and likewise with others from near Twycross, Leicestershire, kindly contributed to my herbarium by the Rev. Andrew Bloxam.—*Edward Edwards; Bexley Heath, Kent, August* 6, 1844.

507. *Silene Armeria.* Of this interesting plant, formerly noticed "on the banks of the Dee near Chester, and by the Ribble beyond Settle, Yorkshire," but now no longer to be recognized in those localities, I obtained several good specimens last year from a very wild station near the Medway, towards Yalding, far from house or garden; and a few others this season, from the same spot, although (probably from the excessive drought with which we were so long visited), of dwarfish growth.—*Id.*

508. *Dianthus Armeria.* Mr. Babington marks this species as "rare," (Manual, 40). It occurs in many places near here. It affects chalky and gravelly wastes and banks. I have noticed it in abundance this season at Crocking-hill, between St. Mary Cray and Farningham; at Stone, beyond Dartford; and in numberless other localities in the cross-country lanes between Farningham and Gravesend.—*Id.*

509. *Plants at Erith*, 1844. To the town-immured student, whose opportunities for botanical strolls, being few and far between, render of value the merest hint as to the locality of an interesting plant,—I beg to observe that I have noticed this season at Erith, growing about the marshes and wastes, within the shortest distance from the newly-erected pier, among numberless more common species,—Polypogon Monspeliensis, Apera Spica-venti, Barkhausia taraxacifolia (very abundant), Petroselinum segetum, Onopordum Acanthium, Sisymbrium Sophia and Carduus tenuiflorus; the three last named most plentiful and luxuriant.—*Id.*

510. *Plants at Eltham*, 1844. Hutchinsia petræa still retains its old haunts about the walls of the church-yard. I gathered fine specimens from thence in April last. This is the only recorded station for Hutchinsia near the metropolis; which, if the plant be truly indigenous here, is a very interesting fact. Misgivings have arisen among botanists as to the possible introduction of its near neighbour, Centranthus calcitrapa, which has located itself on the same and adjoining walls; but I am not aware that the truthfulness of this station for Hutchinsia has ever been questioned. Centranthus calcitrapa also

appeared this year, but certainly not in *abundance* (Phytol. 617). The old walls of Sherard's garden have been lately repaired, and the interstices cemented and otherwise filled up, to the probable eventual destruction of our plant. Linaria purpurea will doubtless in time be well established at Eltham: I could have collected upwards of a *wheelbarrow load* in July, all self sown about walls and wastes. Oxalis Acetosella, β. *purpurea* occurs, but very small and sparingly, in the woods near the Castle, towards Shooter's-hill.—*Id.*

511. *Note on Asplenium fontanum.* I was rather disappointed to find that the author of the 'History of the British Ferns' has not noticed Asplenium fontanum in the new edition of his work. On the 19th of last month I had the pleasure of receiving from Henry Shepherd, of the Liverpool Botanic Gardens, a single frond of a wild specimen, found by himself in the year 1826, on the rocks above Matlock. *Silvanus Thompson ; Friends' School, York*, *8th month* 5, 1844.

512. *Note on Mr. Gibson's Paper on Carices.* Although I fully agree with Mr. Gibson's observation on the value of scientific controversy (Phytol. 1038), when conducted in a proper spirit, and solely with a view to elicit truth, yet, as I see no utility in prolonging the discussion on the disputed Carices, unless some new facts could be advanced on either side of the question, I have not the slightest intention of replying to that gentleman's criticisms. But as I have been unfortunate enough to call forth some severe observations relative to the share which two of my esteemed correspondents have had in the matter under discussion, I deem it my duty to take up the cudgels in their behalf, and in one instance to expose something very like a *mistake*, to give it no harsher name, into which Mr. G. appears to have fallen. In the first place, in justice to Mr. Sidebotham, I must beg to state, that all the specimens of the disputed Carex which I have received from that gentleman, perfectly agree with those subsequently forwarded by Dr. Wood. And further, that in the course of my correspondence with Mr. S., I have not once had occasion to accuse him of carelessness or negligence in naming the specimens of plants with which he has favoured me. The mistake which he candidly confessed to Mr. Gibson, is one which any of us might have run into; and having been acknowledged in the confidence of a private letter, that confidence certainly ought not to have been violated. In the second place, with regard to the discovery of Carex paradoxa in Yorkshire, quoting Mr. Gibson's *own* words, I may remark, that what *he* has "said on the subject, would, *I think*, have been much better if it had been correct." Wishing to see when and by whom Mr.

Spruce had been anticipated in his discovery of that plant in Yorkshire, I carefully looked through Baines's 'Flora of Yorkshire' (to which Mr. Gibson refers us for this information), aye, examined it "from title-page to colophon," Addenda and all, but not a word could I find about Carex paradoxa. The only Carices named as growing in Ascham bogs, are C. teretiuscula and C. Pseudo-cyperus; and neither under these species, nor in any other part of the book, so far at least as I can see, is there anything to invalidate the claim of Mr. Spruce to the honor of having been the first to discover C. paradoxa in Yorkshire, and consequently in England.—*Geo. Luxford; August* 4, 1844.

513. *Note on Mr. Gibson's Remarks on Carices.* On receiving the last number of 'The Phytologist,' I was a little surprized to find that Mr. Gibson, in the exercise of his combative propensities, has thought fit to make an unprovoked attack upon me. As it is *just possible* that some one may be misled by it, I trouble you with a word of explanation. Mr. G. speaks of my sending the fruit of Carex teretiuscula to Mr. Babington, *by mistake*, instead of that of the supposed C. pseudo-paradoxa. The mistake was speedily discovered and as speedily corrected. Did Mr. Gibson never make a mistake? He says that Carex paradoxa was published in Baines's 'Flora of Yorkshire,' (Phytol. 1043); has any one else seen it there? He complains that I have sent *different* plants to several individuals as his Carex pseudo-paradoxa. The fact is, a somewhat variable plant grows at Seaman's Moss-pits; this plant Mr. Gibson says is a new one, and he calls it his Carex pseudo-paradoxa. The specimens sent by me to Mr. Luxford and Mr. King, and to which he alludes, *were all collected there*. If the plants will not square exactly with Mr. Gibson's description, it is their fault, not mine; of course, Mr. Gibson cannot be under *a mistake*. Mr. G. has no occasion to visit Seaman's Moss-pits to obtain his plant; it grows in several places in the immediate vicinity of Manchester, presenting variable appearances, which differ almost as much from each other, as from the *normal state* of Carex teretiuscula. — *Joseph Sidebotham; Manchester, August* 6, 1844.

514. *Note on Coronopus didyma.* It may not be uninteresting to the London readers of 'The Phytologist,' to know that the West of England plant, Coronopus didyma, occurs rather plentifully in Kew church-yard. I found it in that locality yesterday. It is probably a derivative from the Royal gardens, but it seems to have made itself quite at home, and promises to become a permanent addition to our Flora, if collectors will but show it a little indulgence. —*Edwd. Palmer, M.B.S.L.; David Place, Poplar, August* 9, 1844.

515. *Excursion of the Linnean Club.* The Linnean Club made its first excursion for the season, on Wednesday, the 3rd of July. Black Nottley church-yard, the burial place of the immortal Ray, being fixed on as the terminus of their pilgrimage, the members of the club left London by an early train, and arrived at the Witham station of the Eastern Counties railway about 10 o'clock; thence repairing to the White Hart at Witham, they sate down to a most substantial breakfast, which completely fortified them for their journey to Black Nottley, a distance of five miles, safely accomplished in a variety of carriages. Arrived at Black Nottley, they were met by Mr. Patterson, the present resident in the house once occupied by the illustrious naturalist in whose honour the excursion was projected. Mr. Patterson invited them to call on him, and gave them a very cordial reception, having provided an elegant and bountiful luncheon. When the members of the club felt sufficiently recruited by partaking of Mr. Patterson's good fare, they re-entered their carriages and returned to dine at the White Hart, at Witham, Mr. Forster, V.P.L.S., presiding. The dinner passed off with the utmost unanimity and good feeling; and the party returned to London by the half-past 6 o'clock train, and arrived at Shoreditch about 8, highly delighted with the day's occupations, and unanimously regretting that, owing to the arrangement of the trains, they could not have prolonged their stay to a later hour. There were present, the Lord Bishop of Norwich, P.L.S. (who was obliged to return to London in the early part of the day), Dr. Robert Brown, V.P.L.S., Edward Forster, Esq., V.P.L.S., Dr. Lankester, and Messrs. Yarrell, Bell, Harrison, Milne, White, Solly, Bennett, Taylor, Winterbottom, Anstead, Forbes, Clarkes (of Saffron Walden), Kippist and Van Voorst. — "*From our own Reporter.*"

516. *Note on the British Species of Œnanthe.* While at home for only two or three days, I have seen Mr. Babington's note on these plants (Phytol. 1060), and I trust that some words of comment upon it may be in time for a hint to collectors in September. Mr. B. says that he knows of localities for Œ. pimpinelloides only in three counties. I possess imperfect specimens from other localities than those named, and have gathered the same species on a hedge-bank in the Isle of Wight. But not having obtained any series sufficient to show both root and fruit from the same locality, I was unable to speak with confidence about them, before seeing the specimens from Mr. Lees; because, the other characters (taken from the leaves and involucres) were inadequate to separate my specimens of Œ. pimpinelloides from those received as Œ. peucedanifolia. On comparing the specimens

from Mr. Lees with my cultivated plant, which I knew to be the species, thus named from the Unio Itineraria, the existence of the same species in Britain seemed sufficiently certain; and I presume it likely to be found scattered through great part of England. I cannot say that I yet know exactly what Mr. Babington means by Œ. Lachenalii, and should not be surprised to find it identical, as a species, with the Œ. peucedanifolia of the same author. At all events, I have never seen British specimens with roots such as are described for the Œ. Lachenalii. But I have already explained, in the London Journal of Botany,' (Feb. 1844), that the roots of Œ. pimpinelloides, and probably also those of "Œ. peucedanifolia" (so usually named by collectors) vary very much with age; appearing absolutely without tubercles or other enlargements at one season of the year, if the withered remains of those of the preceding summer be overlooked. I can now add that I have seen long, fusiform, fleshy, sessile roots (much like those of the Dahlia in miniature) on the true Œ. pimpinelloides, although the roots of that plant are usually slender, with an oval tubercle on each, an inch or two below the base of the flowering stem. I would here request collectors to obtain materials for determining whether really there are *two* other species in this country, in addition to Œ. pimpinelloides, which is quite clear and certain. Not having yet seen the papers of Mr. Ball and Mr. Babington, in the Annals, I am still unaware what evidence they adduce to establish the *two* other alleged species. The Œ. peucedanifolia of the London Catalogue includes both these two species, if two such exist. Until reading the note of Mr. Babington, I was fully under the impression that I had sent him, last winter, specimens of Œ. pimpinelloides, to illustrate the changes in the character of its root, with advancing age; at the same time informing him that the specimens were descendants from a plant collected in the Isle of Wight. — *Hewett C. Watson: Thames Ditton, August* 15, 1844.

517. *Yorkshire Locality for Asplenium fontanum.* Allow me to add to the already few habitats for that rare fern, Asplenium fontanum, *Smith*, three fronds of which I collected in Wharncliffe wood, Yorkshire, in the year 1838, and which I now enclose for your inspection. I shall feel obliged by your returning them at your leisure, as they are all the *wild* specimens in my herbarium. I have this year, July, 1844, examined the locality, but have not been successful, not being able to find the precise spot where I gathered the enclosed. — *R. Milne Redhead; Cliffe Point, Broughton, Manchester, August* 20, 1844.

518. *Yorkshire Locality for Lastræa Thelypteris.* In July of the present year, I found two imperfect fronds of Lastræa Thelypteris, *Presl*, in a damp place in Wharncliffe wood, a locality which Mr. Newman has not named, either in his County List of Yorkshire ferns (Phytol. 449), or in his late edition of the Ferns. I left the root, not wishing to destroy the habitat, and could not discover more than two fronds. A single plant of Neottia Nidus-avis grew near it.—*Id.*

519. *Reply to the Enquiry about Bartramia falcata*, Hook., Linn. Trans. &c. (Phytol. 1035). I have examined the original specimen, and consider it to be as distinct from Bartramia calcarea, *Br. & Sch.*, as that species is from B. fontana. B. uncinata (*Schwægr.*, Suppl. t. 57) may be a small variety of B. calcarea, but the locality (Guadeloupe and Martinique) renders this inference somewhat hazardous. B. calcarea grows on Hale Moss, near Altrincham, Cheshire, with both kinds of inflorescence, but without fruit: I have never seen it elsewhere. On the subject of B. calcarea, I must beg leave to say, that the unilateral direction of the leaves is not, in every species of moss, perhaps not even in this, a character to be safely depended upon. The seta in Bartramia, as in all acrocarpous genera, is essentially terminal. Andræa nivalis and A. Rothii are abundantly distinct species, but I cannot say as much for Dicranum falcatum and D. Starkii, which, on the Clova mountains, present many intermediate forms. The true calyptra of Polytrichum is the small scariose integument immediately in contact with the operculum. I have myself met with similar instances to that described by Mr. Edmonston. The apparent unity of the two calyptræ arises simply from mutual adhesion of the hairlike fibres which cover the true calyptra, and are inserted near its apex. Such an appearance may be expected whenever two perfect and contiguous archegonia are developed. I have a specimen of a Bryum, where two setæ, in similar circumstances, have become incorporated in their lower half, presenting the appearance of a forked fruit-stalk. With regard to the validity of the species retained or proposed as such by Bruch and Schimper, every one will form his own judgment; but I would suggest the propriety of studying the subject with diligence and attention, before any condemnation be passed upon their positions. This is the least mark of deference due to authors, who have the merit of having abolished so many spurious species, and of having reduced them to their proper rank of varieties. Whatever praise they are entitled to as *discriminators*, they have acquired it in consequence of having systematically applied those very characters which Mr. E. terms trivial. Perhaps these may find more

favour in his eyes on further acquaintance, or he will see it necessary to modify still more his encomium. Though I do not agree with Br. and Sch. on every point, I should hesitate to pronounce any such censure as that contained in Mr. E.'s remarks. Their work deserves to be studied, and should not be lightly criticised.—*W. Wilson; Warrington, August* 22, 1844.

520. *Teucrium Botrys found in Surrey.* On Saturday last, the 17th instant, when in company with Mr. Wm. Bennett, I found several fine plants of Teucrium Botrys, in a wild stony locality, far from any house or garden, at the back of Box-hill, in Surrey.—*T. Ingall; August* 23, 1844.

Art. CCXXXVI.—*Proceedings of Societies.*

BOTANICAL SOCIETY OF EDINBURGH.

Thursday, July 11, 1844.—This day the Society held its last meeting for the session, at the Royal Botanic Garden. Professor Graham in the chair.

The Treasurer read a paper on three genera of Desmidieæ, by Mr. John Ralfs, Penzance, viz., Desmidium, Glæoprium and Schistochilum.

Mr. James M'Nab read a portion of his Journal of a Tour in the United States and Canadas. In the last notice, Mr. M'Nab gave an account of the excursion from Albany to Troy, and thence to Stillwater, with notices of the most interesting plants observed during the journey thither; the present portion is chiefly confined to observations on the Botany of the same district. July 15.—In the early part of the day a severe thunder storm, accompanied with much rain, prevented the party from going abroad, but afforded an opportunity for arranging the specimens already collected. The storm having abated towards the afternoon, they were enabled to make a short excursion along the banks of the Hudson; few species, however, rewarded their exertions, the greater portion being out of flower; of those gathered, the most attractive were Lobelia cardinalis and Habenaria fimbriata, both in great abundance, the rich spikes of scarlet flowers of the former being admirably contrasted with the delicate purple blossoms of the latter: these two species formed the bulk of the flowering plants. Mixed with them, but more sparingly, Habenaria lacera and Neottia cernua occurred, with Apocymum androsæmifolium, the latter being the most abundant, and covered with a beautiful Coleopterous insect, which appeared to be peculiar to it. On the sloping banks of the river, in thickets of sumachs, hazels, willows, &c., a gigantic species of Solomon's seal, Polygonatum latifolium, was observed; some of the specimens measured seven feet nine inches in height, with roots four inches in circumference. In several places the ground was so matted over with the stems of the poison oak, Rhus toxicodendron, that the hands of the party were much blistered in endeavouring to extricate themselves. July 16.—Having procured a canoe, the party proceeded about two miles down the river; during this short voyage they observed vast quantities of the shells of the fresh-water muscle, covering the little sandy hills by the river's edge, which had been collected by the musk-rats, with which the banks everywhere abound. At this place the rapidity of the stream, which had hitherto prevented the growth of aquatic plants, became much diminished, and they now observed large portions of its surface covered with Nuphar Kalmiana and advena, together with Nymphæa rosea, all beautifully in flower, and growing from a depth of eight feet. Overhanging the banks on both sides of the river, Salix petiolaris was in fine condition, its broad, lunate stipules adding much to the beauty and singularity of its appearance; here also, some fine specimens of the Virginian poplar (*Populus monilifera*) were seen, the largest stems measured were nine feet in circumference, and about seventy feet in height.

Leaving Stillwater, the party proceeded by canal to Whitehall. On the banks of the canal, and extending over the neglected fields, such quantities of the great mullein (*Verbascum Thapsus*) were observed, as to give the idea of its having been sown for a crop. The fact of its growing on the soil which had recently been thrown out of the canal, as well as on the sloping banks, convinced them that the seed must have lain buried in the earth, probably for a long series of years, and that, therefore, it is not likely, as has been generally supposed, that this plant has been introduced by the emigrants, but rather that it is indigenous to the country. The common St. John's wort (*Hypericum perforatum*) was also extremely abundant in this district, although sparingly seen before, and is described by Mr. M‘Nab as one of the greatest evils the American farmer has to contend with, being supposed to be highly injurious to cattle, especially horses, causing blindness, which prevailed in many parts to a fearful extent.

On reaching Whitehall, situated at the southern extremity of Lake Champlain, two remarkable species of ferns were observed for the first time; namely, Asplenium rhizophyllum and Aspidium bulbiferum: the former growing on the surfaces of moist rocks, where it throws out its fronds, which take root at their extremities; while the latter bears a number of small bulbs along the rachis, which, when mature, fall off and vegetate in the crevices of the rocks. Many other interesting plants were observed, but few of them in flower, with the exception of Rubus spectabilis, Desmodium acuminatum and canadense, and a few others.

Mr. M'Nab afterwards exhibited several specimens of gooseberries and currants, which had been kept for the last two years in glasses, containing water only, in which they had now matured their fruit for the second time; and it was remarkable that the gooseberries (*yellow amber*), and the red and white currants, were as highly flavoured as the same sorts under ordinary treatment.

Mr. Trevelyan exhibited specimens of some remarkable varieties of Taraxacum officinale, found on the sandy beach near Arbroath, and a curious variety of Aspidium Filix-femina from Braemar, having the frond branched at the extremity. The specimens were afterwards presented to the Society.

BOTANICAL SOCIETY OF LONDON.

August 2nd, 1844. — John Reynolds, Esq., Treasurer, in the chair. Mr. John Tatham, jun. and Mr. G. S. Gibson, presented specimens of a new British plant, Spergula stricta, *Sw.* (Arenaria uliginosa, *Schl.* and *DeCand.*; Alsinantha stricta, *Fenzl* and *Reich.*), discovered by them in June last (in company with Messrs. Jas. Backhouse, Jas. Backhouse, jun. and Silvanus Thompson), near the top of Widdybank Fell, Durham, about ten miles west of Middleton in Teesdale, and five from the High Force, (Phytol. 1066). Mrs. M. Stovin presented specimens of Anemone ranunculoides, found in a wood near Worksop, Nottinghamshire. Specimens from the same locality were presented in June, 1843, (Phytol. 655). Mrs. S. observes, "The more I see and hear of this plant in its Nottingham situation, the more am I convinced of its being wild."

Read, the concluding portion of Mr. Lees's elaborate paper "On the British fruticose species of Rubus;" and several specimens and drawings were exhibited in illustration of the views contained in the Essay.—*G. E. D.*

Errata in our last Number.

Page 1063, line 19, for '*two callosities* at the base,' read '*less callosity* at the base.'

Page 1064, line 12, for 'number of flowers *on* the Hieracia,' read 'number of flowers *in* the Hieracia.'